Conjunction

p ^ q

Both p and q must be true to output true

Disjunction

p v q

Either p or q is true to output true

Negation

¬ p

Reverse p’s truth value

Conditional statements

p → q

Converse:

q → p

Contrapositive:

¬q → ¬p

Inverse:

¬p → ¬q

False only if p is true and q is false

Tautology

p ↔ q

Evaluates for true for every truth assignment

Contradiction

Evaluates for false for every truth assignment

Logically equivalent

De Morgan’s Law

Conditional statements

P